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EXAMINER

OSTERHOUT, BENJAMIN LEE

ART UNIT	PAPER NUMBER
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1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,699	Applicant(s) REHM ET AL.	
	Examiner BENJAMIN OSTERHOUT	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13, 15-18, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by WIPO Patent Application Publication WO02/12610 A1 to Park et al. (Park).

Regarding claim 13, Park teaches a washing machine (Fig. 4, generally) which includes an electronic controller for controlling washing in a body (not shown, page 6, ll. 20-22) wherein the device includes a circuit board (programmable control module, Fig. 4, part 20) connected for exchange of electrical signal with a controller and a connection port (interface, Fig. 4, part 30) on the circuit board for exchange of data related to washing with an external device (page 6, ll. 23-26) wherein Figure 4 clearly shows access to the connection port (interface, Fig. 4, part 30) without dismantling parts of the washing machine.

Regarding claim 15, Park also teaches that the connection port (Fig. 4, part 30) includes a plurality of pins (contacts, Fig. 4, part 33) which is a type of plug connection.

Regarding claim 16, Park teaches an embodiment of the circuit board (programmable control module, Fig. 8, part 20) connected to a radio transceiver

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(interface, Fig. 8, part 72) which communicates with an external radio transceiver (Fig. 8, part 71) through the use of UV communication (page 14, ll. 10-14) a type of wireless radio connection wherein one of ordinary skill in the art realizes that said device must include some form of memory means in order to retain and execute the programmed cycle.

Regarding claim 17, Park teaches that the programmable control module is a circuit board (Fig. 4, part 20) which one of ordinary skill in the art understands to include electronic components and furthermore Park anticipates the possibility of shorting out of electronic components thereby preferring to use a structure that inhibits the flow of water to the electronic components (page 8, ll. 25-29). The language in claim 17, “preferably at least one microprocessor and/or memory means” is not a positive recitation; and therefore said language is regarded as optional language which does not require or provide a further structural limitation to the claim language.

Regarding claim 18, Park also anticipated the updating of the program in order to improve washing performance (page 1, ll. 19-22) therefore one of ordinary skill in the art would understand that the circuit board (Fig. 4, part 20) which receives information via the connection port (interface, Fig. 4, part 30) further includes a program to determine the wash cycle of the washing machine (See also page 6, ll. 20-22).

Regarding claim 22, Park teaches that the circuit board (programmable control module, Fig. 4, part 20) is a part of the controller for controlling washing in a body (not shown, page 6, ll. 20-22) and therefore is connected to the washing machine. One of ordinary skill in the art at the time of the invention would understand that since the

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controller is a type of electronic controller it uses electricity in order to send/receive input and output, therefore the controller clearly has an electrical connection to the washing machine.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 13-14, 24, and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 20030205954 to Oyler et al. (Oyler) in view of WIPO Patent Application Publication WO02/12610 A1 to Park et al. (Park).

Regarding claims 13 and 14, Oyler teaches a dishwasher with a control module in the door assembly (paragraph 1, ll. 1-3 and paragraph 47, ll. 7-9). Oyler does not

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teach that the control module has an interface that can be accessed for programming without dismantling parts of the dishwasher.

Park teaches a washing machine (Fig. 4, generally) which includes an electronic controller for controlling washing in a body (not shown, page 6, ll. 20-22) wherein the device includes a circuit board (programmable control module, Fig. 4, part 20) connected for exchange of electrical signal with a controller and a connection port (interface, Fig. 4, part 30) on the circuit board for exchange of data related to washing with an external device (page 6, ll. 23-26) wherein Figure 4 clearly shows access to the connection port (interface, Fig. 4, part 30) from an exterior of the washing machine in order to update the washing technology of the washing machine (page 2, ll. 2-10 and 18-20) without have to dismantle parts of the washing machine.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the control module of Oyler with the controller and programmable control module of Park in order to update the washing technology of the dishwasher of Oyler without having to dismantle parts of the dishwasher.

Regarding claim 24, Oyler in view of Park is relied upon as above in claim 14. Oyler in view of Park teach the accessible control module in a dishwasher that can be accessed from outside the dishwasher. Oyler in view of Park do not teach that the programmable control module is located in a bottom tray of the dishwasher.

However, the placement of the controller in a bottom tray of a dishwasher is a matter of obvious engineering choice. See MPEP 2144.04 VI, C; *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). The bottom trays are easily accessible and

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unobstructed by use of the dishwasher. Furthermore, even if the control module were placed in the bottom tray of the dishwasher, the movement of the control module would still achieve the predictable result of being able to be accessed from an exterior of the dishwasher in order to be updated. Therefore said movement of the control module would not have modified the operation of the control module.

Regarding claim 26, Oyler in view of Park is relied upon as above in claim 14. Oyler in view of Park do not teach that the programmable control module is located adjacent to the interface, and the programmable control module and the interface are located at a rear wall of a bottom tray of the washing appliance.

However, the placement of the controller adjacent to the interface and said controller at a rear wall of a bottom tray of a dishwasher is a rearrangement of parts that would have been a matter of obvious engineering choice for one of ordinary skill in the art at the time of the invention. See MPEP 2144.04 VI, C; *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). The bottom trays are easily accessible and unobstructed by use of the dishwasher. Furthermore, even if the control module were placed in the bottom tray of the dishwasher, the movement of the control module would still achieve the predictable result of being able to be accessed from an exterior of the dishwasher in order to be updated. Therefore said movement of the control module would not have modified the operation of the control module.

Regarding claims 27-29, Oyler teaches a dishwasher with a control module in the door assembly (paragraph 1, ll. 1-3 and paragraph 47, ll. 7-9). Oyler does not teach

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that the control module has an interface that can be accessed for programming without dismantling parts of the dishwasher.

Park teaches a washing machine (Fig. 4, generally) which includes an electronic controller for controlling washing in a body (not shown, page 6, ll. 20-22) wherein the device includes a circuit board (programmable control module, Fig. 4, part 20) connected for exchange of electrical signal with a controller and a connection port (interface, Fig. 4, part 30) on the circuit board for exchange of data related to washing with an external device (page 6, ll. 23-26) wherein Figure 4 clearly shows access to the connection port (interface, Fig. 4, part 30) from an exterior of the washing machine in order to update the washing technology of the washing machine (page 2, ll. 2-10 and 18-20) without have to dismantle parts of the washing machine.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the control module of Oyler with the controller and programmable control module of Park in order to update the washing technology of the dishwasher of Oyler without having to dismantle parts of the dishwasher.

Oyler in view of Park do not teach that the programmable control module is located adjacent to the interface, and the programmable control module and the interface are located at a rear wall of a bottom tray of the washing appliance.

However, the placement of the controller adjacent to the interface and said controller at a rear wall of a bottom tray of a dishwasher is a rearrangement of parts that would have been a matter of obvious engineering choice for one of ordinary skill in the art at the time of the invention. See MPEP 2144.04 VI, C; *In re Japikse*, 181 F.2d 1019,

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86 USPQ 70 (CCPA 1950). The bottom trays are easily accessible and unobstructed by use of the dishwasher. Furthermore, even if the control module were placed in the bottom tray of the dishwasher, the movement of the control module would still achieve the predictable result of being able to be accessed from an exterior of the dishwasher in order to be updated. Therefore said movement of the control module would not have modified the operation of the control module.

Regarding claim 30, Park also anticipated the updating of the program in order to improve washing performance (page 1, ll. 19-22) therefore one of ordinary skill in the art would understand that the circuit board (Fig. 4, part 20) which receives information via the connection port (interface, Fig. 4, part 30) further includes a program to determine the wash cycle of the washing machine (See also page 6, ll. 20-22).

Regarding claim 31, Oyler teaches a dishwasher with a control module in the door assembly (paragraph 1, ll. 1-3 and paragraph 47, ll. 7-9). Oyler does not teach that the control module has an interface that can be accessed for programming without dismantling parts of the dishwasher.

Park teaches a washing machine (Fig. 4, generally) which includes an electronic controller for controlling washing in a body (not shown, page 6, ll. 20-22) wherein the device includes a circuit board (programmable control module, Fig. 4, part 20) connected for exchange of electrical signal with a controller and a connection port (interface, Fig. 4, part 30) on the circuit board for exchange of data related to washing with an external device (page 6, ll. 23-26) wherein Figure 4 clearly shows access to the connection port (interface, Fig. 4, part 30) from an exterior of the washing machine in

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order to update the washing technology of the washing machine (page 2, ll. 2-10 and 18-20) without have to dismantle parts of the washing machine.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the control module of Oyler with the controller and programmable control module of Park in order to update the washing technology of the dishwasher of Oyler without having to dismantle parts of the dishwasher.

Oyler in view of Park do not teach that the programmable control module is located adjacent to the interface, and the programmable control module and the interface are located at a rear wall of a bottom tray of the washing appliance.

However, the placement of the controller adjacent to the interface and said controller at a rear wall of a bottom tray of a dishwasher is a rearrangement of parts that would have been a matter of obvious engineering choice for one of ordinary skill in the art at the time of the invention. See MPEP 2144.04 VI, C; *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). The bottom trays are easily accessible and unobstructed by use of the dishwasher. Furthermore, even if the control module were placed in the bottom tray of the dishwasher, the movement of the control module would still achieve the predictable result of being able to be accessed from an exterior of the dishwasher in order to be updated. Therefore said movement of the control module would not have modified the operation of the control module.

Whereby one of ordinary skill realizes that the interface may be accessed without a dismantling (see above modification) and a program may be sent for updating the controller (page 1, ll. 19-22 and page 6, ll. 20-22).

Regarding claim 32, Oyler in view of Park is relied upon as above in claim 31. One of ordinary skill in the art also realizes that the dishwasher of Oyler in view of Park may be updated with a new rinsing sequence as Park anticipates that the program may be updated (page 2, ll. 2-10 and 18-20).

6. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application Publication WO02/12610 A1 to Park et al. (Park) in view of U.S. Patent No. 5917690 to Anderson.

Regarding claim 19, Park is relied upon as above in claim 13. Park does not teach the use of a power supply input filter on the programmable control module (circuit board) for filtering higher frequencies.

Anderson teaches regulated current power supply (col. 1, ll. 11-12) wherein the power supply uses an input filter to reject internal noise (col. 2, ll. 52-56) wherein such internal noise may interfere with the signals sent among the various electrical components.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the program control module (circuit board) of Park with the power supply input filter of Anderson in order to reject internal noise wherein such internal noise may interfere with the signals sent among the various electrical components of the washing machine.

With regards to finding an optimal predetermined range one of ordinary skill in the art through routine experimentation may have discovered such range. See MPEP 2144.05, Section II, Part A.

Regarding claim 25, Park in view of Anderson is relied upon as above in claim 19. Park in view of Anderson does not teach that wherein the power supply input filter is for filtering out frequencies in the range of 150kHz to 30MHz or from 30MHZ to 300MHz.

While Park in view of Anderson discloses the claimed invention except for 150kHz to 30MHz or from 30MHZ to 300MHz, it would have been obvious to one skilled in the art at the time of invention to use the claimed range of claim 25, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges involves only routine skill in the art (see MPEP 2144.05, Section II, Part A).

7. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application Publication WO02/12610 A1 to Park et al. (Park) in view of U.S. Patent 5915851 to Wattrick et al. (Wattrick).

Regarding claim 20, Park is relied upon as above in claim 13. Park does not teach that the control module includes a primary power plug connector for the power supply of the control module and appliance. At the very least one of ordinary skill in the art would understand the control module of Park to be hardwired in order to receive electricity.

Wattrick teaches a home appliance for water dispensing and draining (col.1, ll. 5-7) wherein the electrical plug connector registers with a compatible plug of the control module (col. 6, ll. 39-40).

Since Park and Wattrick each teach means for connecting the control module and appliance to power it would have been obvious to one of ordinary skill in the art to replace the hard wired means with the plug connector means in order to achieve the predictable result of supplying power to the control module and appliance.

Regarding claim 21, the claim language for this claim is intended use. One of ordinary skill in the art could arrange the components or a connector wherein the interface and the power plug connector can be contacted by a complimentary combination plug connector. In this claim, Applicant has not per se limited the structure of the control module, but rather recited a structure of a combination plug connector that Applicant is not positively claiming. However, it would have been obvious to one of ordinary skill in the art to create a plug connector with ends that engage each other so that a communication/electrical path may be created.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application Publication WO02/12610 A1 to Park et al. (Park) in view of U.S. Patent Application Publication No. 20020131243 to Harrison et al. (Harrison).

Regarding claim 23, Park is relied upon as above in claim 13. Park teaches a washing machine (Fig. 4, generally) which includes a controller for controlling washing in a body (not shown, page 6, ll. 20-22) wherein the device includes a circuit board

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(programmable control module, Fig. 4, part 20) on which one of ordinary skill in the art understands to include electronic components and furthermore Park anticipates the possibility of shorting out of electronic components thereby preferring to use a structure that inhibits the flow of water to the electronic components (page 8, ll. 25-29). Park does not teach that the washing machine has a complementarily constructed slot to receive the board, wherein a section at the edge of the board is preferably embodied as an electrical connection with a number of electrical contacts.

Harrison teaches a circuit board with electrical contacts on its edge (Fig. 1, part 11 and part 12) and slot connector assembly (paragraph 1, ll. 1-2) wherein a circuit board may be removably inserted into a slot connector for the purposes of mechanically and electrically coupling the circuit board to a motherboard (paragraph 15, ll. 1-6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the controller and programmable control module of Park with the circuit board with electrical contacts and slot connector assembly of Harrison in order to removably, mechanically, and electrically couple the circuit board to the controller.

Examiner's Response to Arguments

Examiner has carefully and thoroughly review Applicants' amendments and arguments in support of patentability, however, Examiner remains unconvinced.

Regarding claim 13, Applicant argues that that the controller of Park does not control rinsing sequences. Examiner argues that the controller of Park inherently

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controls rinsing sequences. One of ordinary skill in the art realizes that rinsing sequences are part of a routine program that washing machines use in order to clean clothes, ware, etc.

Regarding claim 14, Applicant argues that Park does not teach a dishwasher but rather a washing machine for washing clothes. Examiner would like to point out to Applicant that the primary art used is that of Oyler, which teaches a dishwasher. Also, the two arts are related because they both deal with the cleaning arts.

With regard to claim 17, Examiner now views that the language is no longer being treated as optional and has been dealt with as above in the examination of claim 17.

With regard to claim 18, Applicant argues that Park does not disclose any operating system used for programming. Examiner argues that the use of an operating system is inherent as a program must be executed through another program that operates as an interface (hence the operating system). Furthermore, operating systems are notoriously well known in the prior art by one of ordinary skill in the art. Applicant has failed to convey to Examiner why this feature is patentable.

Regarding claim 19, Applicant argues that the Anderson reference is not analogous art. Examiner argues that the Anderson reference is related art in regards to the filtering of noise in that Anderson is trying to solve a like problem as that of Applicant.

Regarding claim 20, Applicant argues that Park does not discuss how the circuit board is electronically connected to the washing machine. Examiner argues that one of

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ordinary skill in the art understands that circuit boards may be electrically connected through a hardwiring or a removable setup, such types of connections are notoriously well known in the prior art. Furthermore Applicant has not conveyed to Examiner why such a connection of the circuit board to the washing machine creates a patentable feature, Applicant has not argues that such juncture is new and unobvious. Rather Examiner argues that such connections are routinely used in the prior art, in various applications, and does not create any new and unexpected result.

Regarding claims 20 and 21, Applicant argues that the Wattrick reference is nonanalogous art. However, Examiner argues that Wattrick reference is related art as in trying to solve the same problem as Applicant in the forming of electrical connections. Furthermore Applicant should note that complimentary electrical connections are notoriously well known in the prior art or else nothing electrical would plug into a source of electricity and nothing would work.

Regarding claim 23, Applicant argues that the Harrison reference is nonanalogous art. However, Examiner argues that the Harrison reference is related art as in trying to solve the same problem as Applicant in regards to connecting electrical devices/boards. Furthermore Applicant should note that such electrical connections are notoriously well known in the electrical and computer fields.

Regarding claim 24, Applicant argues that the cited prior art does not teach that the control module is located in the bottom tray of the dishwasher. However, Applicant has not stated any new an unexpected result that occurs through placing the control module in the bottom tray of the dishwasher. Rather Examiner argues that this was an

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obvious rearrangement of parts that still achieves the predictable result of allowing to gain access to the controller thereby without dismantling the dishwasher.

Examiner would like to note that the 35 USC 112 rejections have been cured as well as the objection to the drawings.

Applicants in pursuing a path of patentability may best find that such course may be reached by claiming structure that defines over the prior art, rather than using a non-compelling argument as to why applicable art is solely based upon hindsight.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN OSTERHOUT whose telephone number is (571)270-7379. The examiner can normally be reached on Monday-Thursday 8:30am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1792

/BLO/

Benjamin L. Osterhout
04 December 2009